HAZMAT

Thousands of incidents occur each year in which oil or chemicals are released into the environment as a result of accidents or natural disasters. Spills into our coastal waters, whether accidental or intentional, can harm people and the environment and cause substantial disruption of marine transportation with potential widespread economic impacts. NOAA's Office of Response and Restoration (OR&R) Hazardous Materials Response Division (HAZMAT) provides scientific expertise to support an incident response and initiates natural resource damage assessment. This integrated approach provides for an efficient and effective response, minimizing the harm to people, reducing the negative impacts to the economy and enhancing environmental recovery. Under the National Contingency Plan, NOAA has responsibility for providing scientific support to Federal On-Scene Commander for oil and hazardous material spills. To support this mandate, HAZMAT provides 24-hour, 7 day a week response to spill events.

NOAA Scientific Support Coordinators (SSC) coordinate scientific information and provide critical information to the Federal On-Scene Commander (FOSC).

In addition to the SSC, HAZMAT Natural Resource Damage Assessment (NRDA) Specialists also provide support to the FOSC, assessing the extent of environmental injury and recommending emergency restoration actions. A multidisciplinary team of HAZMAT scientists, that includes oceanographers, modelers, biologists, chemists, and geologists, are based in Seattle and support the SSCs and NRDA Specialists during spill events as well as for drills, exercises, and contingency planning. SSCs and NRDA Specialists are strategically located around the country, often within USCG offices, effectively providing local services to a range of users in public and private sectors. HAZMAT services include:

- Supporting emergency response and restoration activities
- Assisting in the development of contingency plans
- Developing tools for local decision makers
- Providing training

HAZMAT facilitates spill prevention, preparedness, response, and restoration at national and local levels. By working at both national and local levels on planning activities, HAZMAT provides expertise on such issues as dispersant use, alternate response technologies, response countermeasures, assessment of natural resource injury, and emergency restoration actions.

HAZMAT's scope encompasses the entire U.S. coastline, including the Great Lakes, the Gulf of Mexico, Alaska, and Hawaii. In the last twenty-five years, HAZMAT has responded to virtually every major marine spill in the U.S. In addition, HAZMAT's expertise is frequently sought internationally. While oil and chemical spills are the major focus, HAZMAT also provides support for incidents such as downed aircraft, search and rescue, and tracking floating objects.

Response

HAZMAT responded to over 120 events in 2004. Some of the most notable responses were:

- HAZMAT scientists deployed to the *Athos I* spill after the vessel struck an underwater obstruction and released 270,000 gallons of crude oil into the Delaware River near Philadelphia, PA.
- HAZMAT provided on-scene support in response to the M/V *Selendang Ayu*, a soybean carrier which became disabled, grounded and broke in half in Alaska, releasing over 400,00 gallons of bunker oil.
- HAZMAT assisted the USCG in dealing with an overturned sulfuric acid barge in Texas City, TX, assessing the chemical reaction of the cargo with saltwater, determining the risk of explosion and the development of response actions that minimized risk to responders, nearby facilities and the environment.

Preparedness

Tools, guidelines and small, field-oriented job aids are developed by HAZMAT to assist preparedness for response communities. NOAA has provided standard techniques for observing oil, assessing shoreline impact, and evaluating and selecting cleanup technologies that have been widely accepted by response agencies.

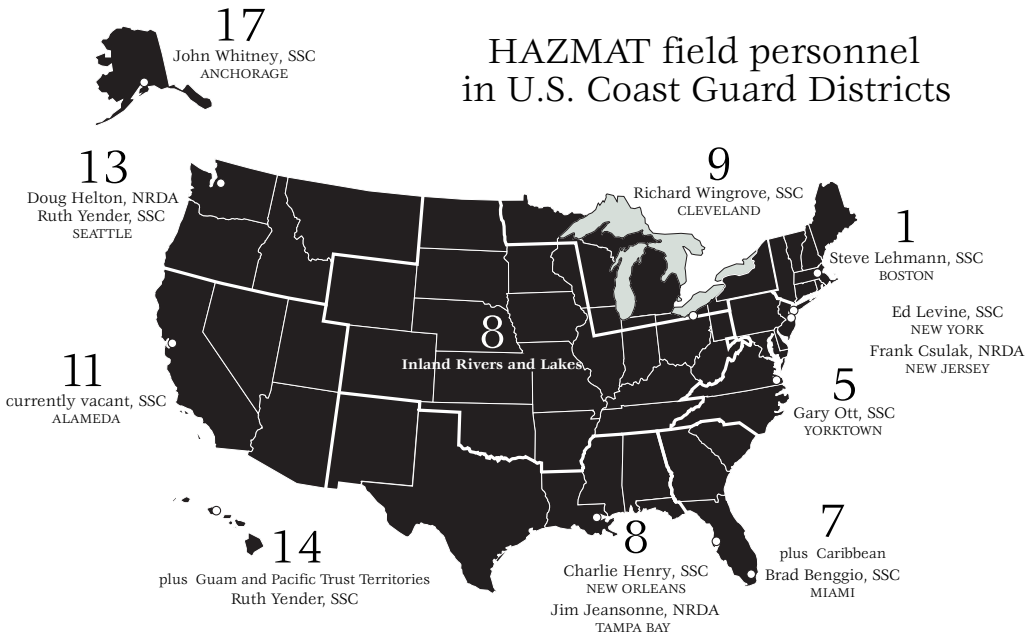
Environmental Sensitivity Index (ESI) maps are used to identify vulnerable resources and habitats in advance of emergencies so that appropriate response actions can be planned. HAZMAT works with local experts to develop or update these maps throughout the country. Maps are published in hardcopy and digital formats, and translators are maintained to assist in using this data in GIS environments.

Some of the more widely distributed tools HAZMAT develops include a trajectory forecasting tool, GNOME, the oil weathering model ADIOS, and the chemical hazard tools, CAMEO and Reactivity. GNOME location files provide a mechanism for end-users to explore various potential spill scenarios. The Automated Data Inquiry for Oil Spills (ADIOS) provides planners and responders with information on how thousands of different oils could physically or chemically change over time under various scenarios. The Computer Aided Management of Emergency Operations (CAMEO) program, developed jointly with the Environmental Protection Agency, provides first responders with information and tools for chemical incidents.

Training

HAZMAT provides training to individuals in industry and government on the scientific aspects of oil and chemical spill response. Over 800 individuals were trained in 2004. The goal of HAZMAT training is to transfer scientific expertise and experience to the broadest possible audience. Successful training promotes more efficient planning and spill response. Each month, an average of 40,000 individuals visit the HAZMAT internet site (www.response.restoration.noaa.gov), where additional reports, response tools, and training materials are available.

For additional information, visit our website at www.response.restoration.noaa.gov, or call 206/526-6317. For 24-hour emergency assistance, call 206/526-4911.



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